

STATEMENT OF QUALIFICATIONS

US EPA RECORDS CENTER REGION 5



472811



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CONTENTS

FEEZOR ENGINEERING, INC. OVERVIEW	2
INTRODUCTION TO FEI	2
SUMMARY OF FEI'S EMPLOYEES' PROJECT EXPERIENCE	2
SOLID WASTE ENGINEERING SERVICES	5
DISPOSAL FACILITY DESIGN AND PERMITTING.....	5
MATERIAL RECOVERY/TRANSFER STATION DESIGN AND PERMITTING	6
OPERATIONAL SERVICES.....	6
MONITORING AND ASSESSMENTS.....	6
SOLID WASTE CONSTRUCTION SERVICES	7
CONSTRUCTION PLANNING	7
CONSTRUCTION QUALITY ASSURANCE OVERSIGHT	7
CONSTRUCTION MANAGEMENT	9
LAND DEVELOPMENT SERVICES	10
GEOTECHNICAL ENGINEERING SERVICES	11

FEEZOR ENGINEERING, INC. OVERVIEW

INTRODUCTION TO FEI

Feezor Engineering, Inc. (FEI) is an engineering firm, specializing in solid waste and geotechnical engineering. FEI offers four categories of engineering services. These are:

- Solid Waste Engineering Services
- Solid Waste Construction Services
- Land Development Services
- Geotechnical Engineering Services

Within this statement of qualifications, a description of each of these services and our experience has been provided. The resumes of our staff have been provided in the last section of this SOQ, which describes our collective project experience.

SUMMARY OF FEI'S EMPLOYEES' PROJECT EXPERIENCE

- Construction Quality Assurance Officer for 7.2-acre landfill liner construction.
- Construction Quality Assurance Officer for 5-acre landfill liner construction.
- Construction Quality Assurance Officer for landfill closure, 16.5 acres of synthetic final cover, with a dual leachate and gas collection system.
- Construction Quality Assurance Officer for baseliner construction, 8 acres.
- Certifying Engineer for baseliner, included test liner analysis, construction of 3.2-acre liner, and all necessary infrastructures.
- Construction Quality Assurance Officer for landfill, including construction and testing of an earthen test liner, construction staking for the excavation of 1 million cubic yards of soil, oversight and testing of full-scale liner construction, and the development of leachate drainage, collection, and management systems.
- Provided construction oversight and documentation for the closure of the landfill including passive gas vent installation and the placement, testing, and documentation for the recompacted earthen layer.
- Installed field testing apparatus and analyzed the field permeability of a test liner.
- Construction Quality Assurance Officer at the landfill, 5-acre cell 3B baseliner.

- Construction Quality Assurance Officer at the landfill, 27-acre final cover system, eastern half, of the North Unit, in Rockford, Illinois. Project includes a composite cap, and a dual leachate/gas collection system.
- Construction Quality Assurance Officer for the 62-acre landfill, final cover construction. Construction Quality Assurance Officer for the new foundry sand landfill (in accordance with 35 Illinois Administrative Code 817).

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- Collected soil boring data, analyzed subsurface conditions, and provided recommendations regarding design and construction of foundations for numerous cellular telephone towers throughout the state of Illinois.
 - Performed Control Quality Assurance duties for a 10-acre final closure landfill project. Duties included all survey certification for a recompacted clay cap, vegetative cover, and gradient drainage systems. Duties also included submittal of all as-built drawings, daily field reports, and construction certification report for IEPA submittal.
 - Designed Construction Drawings for a 15-acre landfill expansion landfill.

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- Resident construction monitor for a 4.0-acre landfill expansion. Duties included excavation stakeout, oversight of CQA operations for recompacted clay liner, geosynthetic liner and leachate collection system. Duties also included the completion of all certification surveys and as-built drawings.
 - Resident construction monitor for a 4.4-acre landfill expansion. Duties included excavation stakeout, dewatering, oversight of CQA operations for recompacted clay liner, geosynthetic liner and leachate collection system. Duties also included the completion of all certification surveys and assisted in all as-built drawings.
 - Performed CQA duties for a 67-acre final closure project. Duties included all survey certification for a recompacted clay cap, installation of a leachate force main system, gas collection system, geosynthetic cap, vegetative cover, all weather access roads and gradient drainage systems. Duties also included preparation of all as-built drawings for CQA acceptance report.
 - Resident construction monitor for an 8.7-acre landfill expansion. Duties included oversight of CQA operation for test-pad construction, boudwell installation and monitoring, sub grade dewatering system, recompacted clay liner, geosynthetic liner and leachate collection system. Duties also included the surveying of a dewatering system and leachate system for as-built drawings.

- Resident construction monitor for a 4.65-acre landfill expansion. Duties included oversight of CQA operation for test-pad construction, boutwell installation and monitoring, sub grade dewatering system, recompacted clay liner, geosynthetic liner and leachate collection system. Duties also included the surveying of a dewatering system and leachate system for as-built drawings.
- Construction Manager and CQA monitor on a new 12.4-acre landfill. Duties included oversight of CQA operations for the entire project, from the initial construction survey through the writing of the Certification Report.
- Lead CQA monitor for installation of 7.8-acre of geosynthetic liner and leachate collection system.

SOLID WASTE ENGINEERING SERVICES

FEI has 10 years of experience in solid waste engineering in Illinois and Missouri. Our solid waste engineering services include:

- Disposal Facility Design and Permitting
- Material Recovery/Transfer Station Design and Permitting
- Operational Services
- Monitoring and Assessments

DISPOSAL FACILITY DESIGN AND PERMITTING

With our past permitting experience, FEI can assemble various solid waste design and permit applications for the Illinois Environmental Protection Agency and the Missouri Department of Natural Resources. These services include projects site compatibility studies, permit-level designs, geotechnical and hydrogeological analysis, environmental studies, site civil design, operating plans, preparation of permit applications, support at public hearings, and regulatory liaison efforts. Specifically, FEI can assemble extensive applications for:

- Local siting approval in accordance with Section 1039.2 of the Illinois Environmental Protection Act.
- Significant Modification Permits in accordance with Title 35 Illinois Administrative Code (IAC) 811.
- Construction Permits in accordance with the Missouri 10 Code of State Regulations (CSR) 80-3.

We have in house capability to take a solid waste design project from conceptual design through final permitting. FEI uses the Autodesk Land Development Desktop (AutoCAD2000), to assemble all plan sheets. We provide our drawings with the standard 24" X 36" plan sheets, and electronically written on a CD with our deliverable. Our disposal facility permit narratives and calculations include, but are not limited to:

- Geotechnical assessments,
- Alternative liner and alternative final cover design demonstrations,
- Site operation plans, including random load inspection plans and special waste management plans,
- Phasing plans, including air space optimization and soil management,
- Closure and post closure plans and cost estimates,

- Groundwater and landfill gas monitoring and assessment plans,
- Gas collection and management plans, including Title V permitting,
- Leachate collection and management plans, and,
- Stormwater management plans, including Stormwater Pollution Prevention Plans, and NPDES permit applications.

MATERIAL RECOVERY/TRANSFER STATION DESIGN AND PERMITTING

FEI provides design drawings, layouts, site plans, and permit application for material recovery facilities and transfer stations. We provide sizes and specifications for balers, conveyors, grinders, magnetic separators, and screens. In addition, FEI provides layouts and specifications for scales and scale houses.

OPERATIONAL SERVICES

FEI offers services to assist our clients with the operation of their facilities. Daniel Feezor, P.E. is a Certified Landfill Operator (Class A with Special Waste Endorsement) with the State of Illinois. This allows our clients the ability to use us as a certified operator, if an interim operator is needed for one of their facilities. In addition, FEI provides volume analyses, site life calculations, and compaction studies, which allow our clients to assess operations, and provide planning for additional liner development.

MONITORING AND ASSESSMENTS

FEI provides the collection, analysis, and assessments for the environmental monitoring of landfill gas, ambient air, stormwater runoff, leachate, and groundwater. Through a strategic alliance with John Bognar, RG, of Leggette, Brashears, and Graham, Inc., in St. Louis, Missouri, FEI provides the following hydrogeological services:

- Hydrogeologic studies, including groundwater monitoring,
- Groundwater sampling and analysis plans, including statistical analysis,
- Installation of groundwater monitoring wells and gas probes,
- Implementation of monitoring programs, including statistical analysis and data management systems, and
- Groundwater Impact Assessments in accordance with the Illinois Regulations.

**SOLID WASTE
CONSTRUCTION SERVICES**

SOLID WASTE CONSTRUCTION SERVICES

FEI provides a broad array of solid waste construction services. We provide Construction Quality Assurance (CQA) and testing services for landfill soil and geosynthetic liners, leachate collection systems, protective covers, gas extraction systems, and final cover systems. Our team of experienced engineers, and engineering technicians are responsible for the construction monitoring, documentation, field testing, and preparation of the certification reports.

FEI's capabilities to meet our clients' CQA needs are unique. Of significance are the following points:

- Project teams with experience in construction quality assurance and project management. FEI's engineers are licensed in Illinois and Missouri.
- FEI employees have obtained Occupational Safety and Health Administration (OSHA) Certifications.
- To achieve client objectives, we have a demonstrated record of cooperative work with regulatory agencies, both on state and federal levels. We have completed liner and final cover certification reports consistent with the requirements of the Illinois Environmental Protection Agency and Missouri Department of Natural Resources.
- FEI has expertise with test pads, Sealed Double Ringed Infiltrometer (SDRI) field permeability testing, Boutwell permeameters, and related construction testing equipment.
- All FEI field technicians are accomplished civil engineering surveyors, and can provide verification surveys or construction staking.

Our solid waste construction services include:

- Construction Planning,
- Construction Quality Assurance (CQA) Oversight, and
- Construction Management.

CONSTRUCTION PLANNING

FEI provides construction plans, specifications, and bid documents for various liner, leachate and gas management facilities, and final cover systems. In addition, FEI provides detailed construction quality assurance plans and guidelines. FEI's staff has prepared CQA plans for many soil and geosynthetic lining projects. Our plans present logical and systematic protocols for monitoring soil, geosynthetic, mechanical, and electrical installations. They include a sequential, detailed guide for verifying a contractor's performance and identifying potential problems.

CONSTRUCTION QUALITY ASSURANCE OVERSIGHT

FEI provides CQA oversight services for all aspects of solid waste construction. For the soil components of landfill construction, FEI's technicians monitor, observe, and document the

following items:

- Soil materials suitability at the borrow source,
- Admix procedures and preconstruction testing for bentonite or other soil admix materials,
- Water content and other physical properties of soil at the borrow source and during mixing, placement, and compaction,
- Soil materials placement, thickness of loose and compacted lifts, and the number of construction equipment passes necessary to adequately compact each soil lift,
- The action of compaction and heavy hauling equipment on the constructed surface for pumping, cracking, compactor foot penetration, or soft areas,
- The proper bonding of successive lifts of material to preceding lifts,
- Sample collection and preparation for laboratory testing for water content, dry density, compaction, grain-size distribution, Atterberg limits, specific gravity, permeability, and shear strength, and
- Documentation of construction activities, including observations, meetings, testing, problems, and corrective measures.
- Surveys of sub-base, top of clay, top of drainage layer, and final cover.

For the geosynthetic components of the landfill construction, FEI's technicians monitor, observe, and document the following items:

- Geosynthetics production inspection at manufacturing or fabrication plant site,
- Earthwork testing as it affects geosynthetics,
- Surface preparation before placement of geosynthetic materials,
- Materials quality assurance, shipment, storage, handling, placement, and anchoring,
- Joining of materials,
- Surface preparation and method of seaming,
- Verification of patching and repairs,
- Nondestructive geosynthetics testing,
- Sampling and destructive geosynthetics testing (field testing),
- Quality control documentation,

- Materials conformance testing,
- Review of problems encountered and their resolutions, and
- Suspected work deficiencies.

CONSTRUCTION MANAGEMENT

FEI provides construction management services for our clients. Specifically, we provide the following services:

- Pay quantity and construction staking surveys,
- Contractor invoice approval,
- Construction scheduling and management, and
- Materials procurement.

**LAND DEVELOPMENT
SERVICES**

LAND DEVELOPMENT SERVICES

FEI provides land development services for our clients. We have full topographic survey capabilities, and provide digital, 3 dimensional terrain modeling of any property. This allows us to provide the following:

- Conceptual and detailed layouts of various features, such as roads, parking lots, utilities, and buildings,
- Grading plans, and
- Hydraulic analyses.

FEI also has capabilities and experience for the following services:

- Stormwater runoff management and detention basin design,
- Recreational or industrial use lake development and dam design,
- Drinking water facility design and water distribution system layout,
- Waste water treatment facility design and sewer layout,
- Wetland delineation and mitigation permit applications, and
- Floodplain delineation and alteration permit applications.

GEOTECHNICAL ENGINEERING SERVICES

FEI offers geotechnical and materials testing services, which meets the structural requirements of building designs.

Our services include a full range of soil, concrete, and asphalt testing to satisfy the quality control and quality assurance requirements for your project. We provide geotechnical reports including subsurface evaluations and foundation recommendations.

Typically, field explorations will consist of, but not be limited to, Standard Penetration Tests (SPT) and water level measurements made during and upon completion of the boring operations. The SPT value ("N" Counts) will be provided at regular intervals through the depth of the borings. Conventional, continuous flight, hollow-stem augers will be employed using split-barrel sampling techniques in general accordance with ASTM Procedure D-1586.

Laboratory testing will normally consist of visual classification, moisture contents tests, unconfined compression tests, and calibrated penetrometer tests. Each sample obtained will be visually classified according to the Unified Soil Classification System (ASTM D-2488) terminology. Natural moisture contents will be determined by ASTM method D-2216. Undrained shear strength of the cohesive soils will be determined from unconfined compression tests. Calibrated penetrometer tests will be performed on cohesive specimens to provide an approximation of the unconfined compressive strength of the soils. All laboratory testing will be performed in general accordance with the respective ASTM Methods.

A general discussion of the foundation, including the shallow and/or deep foundation system analysis and recommendations for preparation of floor slab placement, will be included in a typical geotechnical report. General construction considerations including groundwater control, site preparation, and pavement considerations will be provided.

DANIEL R. FEEZOR, P.E.

President

Professional Qualifications

Mr. Feezor is the President and Owner of Feezor Engineering, Inc. He has extensive solid waste management experience, including designing waste management facilities and hydraulic structures; securing NPDES permits; and permitting new landfill units in accordance with Illinois regulations. He has also designed three material recovery facilities and provided construction observation for landfills in Missouri and Illinois, including serving as a construction quality assurance officer for several landfill facilities in accordance with the 35 Illinois Administrative Code 811 regulations. Mr. Feezor has designed and provided construction observation and testing for six recompacted earthen test liners to develop specifications for full-scale liner construction.

Education

M.S., Agricultural/Environmental Engineering, University of Illinois at Urbana-Champaign, Illinois, 1994

B.S., Agricultural Engineering, University of Illinois at Urbana-Champaign, Illinois, 1989

Registrations/Certifications

Registered Professional Engineer, IL

Registered Professional Engineer, MO

Experience and Background

2000 - Present

President, Feezor Engineering, Inc., Springfield, Illinois

1996 - 2000

Office Manager, EMCON/OWT Solid Waste Services, A Member of the IT Group, Springfield, Illinois

1990 - 1996

Project Manager, Andrews Environmental Engineering, Inc., Springfield, Illinois

Selected Project Experience

Landfill Siting

- Prepared design, site plan drawings, calculations, and narratives for the S.B. 172 local siting application for lateral expansion at the Pagel Landfill in Rockford, Illinois. Participated in the preparation of the significant modification permit application and prepared the CERCLA final cover work plan. Prepared design, site plan drawings, calculations, and narratives for an application for a material recovery facility.
- Project Manager for the Deer Track Landfill Expansion in Johnson City, Wisconsin, for Sanifill, Inc.
- Project Manager for the 28 million cubic yard expansion of a southern Illinois landfill. Currently preparing design, site plans, calculations and narratives for the S.B.172 local siting application.
- Prepared design drawings, calculations, and narratives for the 25 million cubic yard expansion of the Envirote/American Disposal Services's Livingston Landfill in Pontiac, Illinois for the S.B. 172 local siting application.

Landfill Permitting

- Managed the preparation of the significant modification permit application for Envirote/American Disposal Service's Livingston Landfill in Pontiac, Illinois, including a lateral expansion for a total landfill area of 250 acres. Prepared design, site plan drawings, calculations, and narratives for the S.B. 172 local siting application.
- Served as Project Engineer for the preparation of a permit application for the lateral expansion of an existing Part 807 facility under RCRA Subtitle D Regulations.
- Managed the preparation of a significant modification permit application at the Brickyard Disposal and Recycling facility in Danville, Illinois. Prepared drawings and calculations and assembled pretreatment permit applications for discharges to the local treatment system.
- Project Manager for the significant modification permit application for the Pagel Landfill in Rockford, Illinois, Northern Unit.

Landfill Construction

- Served as Construction Quality Assurance Officer for Wayne County Landfill Area IIA liner, 7.2-acre landfill construction, Fairfield, Illinois.
- Served as Construction Quality Assurance Officer for Wayne County Landfill Area IIIA liner, 5-acre landfill construction, Fairfield, Illinois.

- Served as Construction Quality Assurance Officer for the Pagel Landfill, North Unit, Western Landfill Closure. Included 16.5 acres of synthetic final cover, with a dual leachate and gas collection system.
- Served as Construction Quality Assurance Officer for the Southern Illinois Regional Landfill, Baseline Construction, 8 acres, Desoto, Illinois.
- Served as the Certifying Engineer for the Prairie Valley Landfill, Baseline (New Greenfield Site). Included test liner analysis, construction of 3.2-acre liner, and all necessary infrastructures.
- Served as Construction Quality Assurance Officer at the R.C.S. Inc., Landfill in Jerseyville, Illinois, including construction and testing of an earthen test liner, construction staking for the excavation of 1 million cubic yards of soil, oversight and testing of full-scale liner construction, and the development of leachate drainage, collection, and management systems.
- Provided construction oversight and documentation for the closure of the McHenry County Landfill in Crystal Lake, Illinois, including passive gas vent installation and the placement, testing, and documentation for the recompacted earthen layer.
- Installed field testing apparatus and analyzed the field permeability of a test liner.
- Currently serving as the Construction Quality Assurance Officer at the Wayne County Landfill, 5-acre cell 3B baseline, Fairfield, Illinois.
- Currently serving as the Construction Quality Assurance Officer at Pagel Landfill, 27-acre final cover system, eastern half, of the North Unit, in Rockford, Illinois. Project includes a composite cap, and a dual leachate/gas collection system.
- Currently serving as the Construction Quality Assurance Officer for the 62 acre Danville, Illinois General Motors Foundry Sand Landfill, final cover construction. In addition, serving as the Construction Quality Assurance Officer for the new foundry sand landfill (in accordance with 35 Illinois Administrative Code 817) at the Danville, Illinois General Motors Facility.

Material Recovery Facilities

- Prepared design, site plan drawings, calculations, and narratives for the S.B. 172 local siting application for the material recovery facility in Lake-in-the-Hills, Illinois, including a double-lined, 50-acre balefill and a mixed-waste material recovery facility. Provided expert witness testimony to Criteria 2, 4, 5, 7, and 9 of Section 39.2 of the Illinois Environmental Protection Act within a hostile public hearing.
- Prepared design, site plan drawings, calculations, and narratives for a mixed-waste material recovery facility.

Geotechnical Engineering

- Prepared calculations and drawings of critical surfaces, using the STABL5 slope stability model, for a States Land Improvement Landfill in Owatta, Illinois

Publications

Microcomputer Controlled Laboratory Rainfall Simulation, Transactions of the American Society of Agricultural Engineers.

Effect of Cell Sizes on AGNPS Prediction, 1989 American Society of Agricultural Engineers Conference, New Orleans, Louisiana.

Development of Software to Interface GIS Output With AGNPS Input.

MATTHEW W. REICHERT

Project Engineer

Professional Qualifications

Mr. Reichert is a Project Engineer in the Engineering Services Division for Feezor Engineering, Inc. (FEI). He is involved in all phases of engineering design for FEI. Mr. Reichert has performed engineering design and construction quality control for a variety of projects in the Midwest for governmental agencies and small to large construction, engineering, and land development firms over the past 10 years. His duties have included materials testing oversight, engineering surveying, Computer Aided Drawing and Design, foundation and hydraulic design, groundwater monitoring, and certification reporting to governmental agencies.

Education

M.S., Civil Engineering (Geotechnical Engineering), University of Illinois at Urbana-Champaign, 1998

B.S., Civil Engineering (Environmental and Hydrosystems Engineering), University of Illinois at Urbana-Champaign, 1994

Certifications

IDOT Certified Level 1 Bituminous Concrete Technician

IDOT Certified Level 1 and 2 Portland Cement Concrete Technician

ACI Certified Grade 1 Concrete Field Testing Technician

OSHA Certified Hazardous Waste Site Worker

Selected Project Experience

- Collected soil boring data, analyzed subsurface conditions, and provided recommendations regarding design and construction of foundations for Ameritech Cellular Telephone Towers throughout the state of Illinois.
- Performed subsurface evaluations and foundation design recommendations for the Union Food Court at Eastern Illinois University in Charleston, Illinois, the Subsonic Aerodynamics Laboratory at the University of Illinois at Urbana-Champaign (UIUC), and the cross-campus Utility Tunnel at Western Illinois University in Macomb, Illinois.

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- Wrote geotechnical reports throughout the Midwest for Raytheon Corporation's Low Level Wind Shear Alert Systems at regional airports and AutoZone's Retail Facilities.
 - Wrote geotechnical reports in the state of Illinois for the Motorola Design and Research Complex on the campus of the UIUC, the Villa Grove United Methodist Church, the First Christian Church Ministry Facility in Champaign, the Chrisman-Scotland Junior High School, the Vermilion County Museum, the \$10,000,000 Parkview Apartment Complex in Savoy, the Atwood Water Tower, United States Postal Stores in Champaign and Savoy, the Evans Scholars Fraternity House at the UIUC, and residential Detention Basins in Champaign County.
 - Performed materials testing services for the construction of U.S. Interstates 74 and 57 in Illinois, the Marketplace Mall expansion in Champaign, Illinois, the Ameren Power Station in Gibson City, Illinois, the ACES Library at the UIUC, the Steam Tunnel System at the UIUC, and runway pavements at Willard Airport in Savoy, Illinois.
 - Performed Control Quality Assurance duties for a 10-acre final closure landfill project in Donovan, Illinois. Duties included all survey certification for a recompacted clay cap, vegetative cover, and gradient drainage systems. Duties also included submittal of all as-built drawings, daily field reports, and construction certification report for IEPA submittal.
 - Designed Construction Drawings for a 15-acre landfill expansion at the Southern Illinois Regional Landfill in Desoto, Illinois.
 - Performed Volume Analysis and analyzed the field permeability of a recompacted earthen test liner for a new 7-acre cell at the R.C.S., Inc. Landfill in Jerseyville, Illinois.
 - Instructed 150+ engineering students in engineering surveying and 25 engineering students in ACADD in the College of Engineering at the University of Illinois at Urbana-Champaign.

GEORGE R. FRAULI

Construction Services Division Manager

Professional Qualifications

George Frauli is the Construction Service Manager for Feezor Engineering, Inc. (FEI). He is the manager for all CQA fieldwork for FEI. Mr. Frauli has over eighteen years of construction experience in various environmental civil construction fields including eight years as a working foreman for an institutional contractor. His duties have included all phases of exterior construction repair to institutional buildings. In addition he has been employed as a road and bridge inspector for the state of Illinois and for a civil engineering firm in southern Indiana. Mr. Frauli also has over five years of progressive experience including Construction Management, coordinating and performing CQA duties associated with recompacted clay liners, geosynthetic installation, leachate collection system installation, gradient control systems and gas collection systems, for development and closure of municipal sanitary landfills. Mr. Frauli is an accomplished engineering surveyor. He has surveyed on numerous landfills in Illinois and Missouri. Mr. Frauli has completed topographic surveys, as-built surveys, construction stakeout surveys and construction certification surveys. Mr. Frauli has instructed and trained numerous CQA technicians and staff engineers in the proper observation and documentation procedures for sanitary landfill construction. Mr. Frauli has also assisted with preparation of cost estimate proposals, permit applications, and construction certification reports for state approval.

Education / Specialized Training

A.S., Civil Engineering Technology, Lake Land College, Illinois, 1994

Troxler Electronic Laboratories, Inc. Training Course, Cert. #061577, 1994

Troxler Electronic Laboratories, Inc. Radiation Safety Officer Training Course, 1998

Indiana Dept. of Transportation Certified Technician Program: Bituminous Paving, Bridge Construction and Deck Repair, Construction Earthwork, Traffic, Miscellaneous Concrete, and Miscellaneous Construction Items.

OHSA Hazardous Waste Site Worker

OHSA Confined Space Awareness

OHSA Construction Safety

Selected Project Experience

Construction Field Services

- Served as resident construction monitoring for a 4.0-acre landfill expansion in Effingham, Illinois. Duties included excavation stakeout, oversight of CQA operations for recompacted clay liner, geosynthetic liner and leachate collection system. Duties also included the completion of all certification surveys and as-built drawings.
- Served as resident construction monitor for a 4.4-acre landfill expansion in National City, Illinois. Duties included excavation stakeout, dewatering, oversight of CQA operations for recompacted clay liner, geosynthetic liner and leachate collection system. Duties also include the completion of all certification surveys and assisted in all as-built drawings.
- Performed CQA duties for a 67-acre final closure project in Belleville, Illinois. Duties included all survey certification for a recompacted clay cap, installation of a leachate force main system, gas collection system, geosynthetic cap, vegetative cover, all weather access roads and gradient drainage systems. Duties also included preparation of all as-built drawings for CQA acceptance report
- Served as resident construction monitor for an 8.7-acre landfill expansion in Morris, Illinois. Duties included oversight of CQA operation for test-pad construction, boutwell installation and monitoring, sub grade dewatering system, recompacted clay liner, geosynthetic liner and leachate collection system. Duties also included the surveying of a dewatering system and leachate system for as-built drawings.
- Served as resident construction monitor for a 4.65-acre landfill expansion in Morris, Illinois. Duties included oversight of CQA operation for test-pad construction, boutwell installation and monitoring, sub grade dewatering system, recompacted clay liner, geosynthetic liner and leachate collection system. Duties also included the surveying of a dewatering system and leachate system for as-built drawings.
- Served as Construction Manager and CQA monitor on a new 12.4-acre landfill in Crawford County MO. Duties included oversight of CQA operations for the entire project, from the initial construction survey through the writing of the Certification Report.
- Served as the lead CQA monitor for installation of 7.8-acre of geosynthetic liner and leachate collection system at Desoto, Illinois

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- Served as the lead CQA monitor for installation of 6.4-acre of geosynthetic liner and leachate collection system at Desoto, Illinois.
 - Served as lead CQA monitor for installation of a 10.2-acre PVC geosynthetic cap at Desoto, Illinois.
 - Served as the lead CQA monitor for installation of 4.8-acre of geosynthetic liner and leachate force main at Wayne County Landfill.
 - Instructed and trained numerous CQA technicians and staff engineers in the proper observation and documentation procedures for sanitary landfill construction.
 - Engineering technician for a 6.0-acre landfill construction at Decatur, Illinois.
 - Engineering technician for a new 7.0-acre cell at Jerseyville, Illinois.
 - Tier 2 Gas sampling on numerous landfills in Illinois and Missouri.
 - Extensive groundwater sampling and gas monitoring on numerous landfills in the state of Illinois.
 - Responsible for scheduling of all quarterly groundwater sampling and monthly gas monitoring events for sixteen landfills in Illinois.
 - Wrote gas-monitoring protocol for field monitoring of interior and exterior gas probes.

THOMAS M. FRAULI

Construction Services Technician

Professional Qualifications

Tom Frauli is a Construction Service Technician for Feezor Engineering, Inc. (FEI). Mr. Frauli has 6 years of construction, manufacturing, drafting, and testing lab experience. His duties have included 18 months of survey, (Right of Way, topographic, hydraulic, construction, drainage, layout, an as built.) 6 months of construction, (bridges, box culverts, and highways.) and 3 months in the aggregate testing lab, while in the employ of the State of Illinois. In the private sector Mr. Frauli has 39 months of drafting/design work in civil and manufacturing, (15 months as Engineering tech. troubleshooting, and redesigning existing equipment along with 3 dimensional drafting and documentation of all work) (15 months as architectural draftsman) and 9 months of construction experience (bridge, highway, an airport expansion). Mr. Frauli is an accomplished surveyor and construction inspector.

Selected Project Experience

Construction Field Service

Received training in CQA operations at an 8-acre landfill site at Morris, Illinois

Education / Specialized Training

A.S., Civil Engineering, Lake Land College 1996

Troxler Electronic Laboratories, Inc. Training Course Cert. #072078

Illinois Department of Transportation QC/CA Certified, aggregate levels I and II, and PC concrete, asphalt levels I and II

OSHA 40-Hour HAZWOPER Course



Leggette, Brashears & Graham, Inc.

Professional Ground-Water and Environmental Engineering Services

John L. Bognar, PG, RG

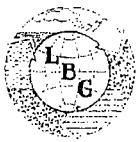
John L. Bognar, an Associate with Leggette, Brashears & Graham, Inc. the most senior hydrogeologic firm in the nation. He is the office manager of the St. Louis and Kansas City, Missouri offices, a licensed professional geologist in Illinois and Missouri with over 20 years of experience. He has provided project management, regulatory compliance, field supervision and other professional services for large and small landfill clients. His work has included designing and implementing geologic and hydrogeologic investigations for siting, permitting and consent decree compliance at numerous landfill operations in Missouri and Illinois.

Mr. Bognar has negotiated clients' positions and plans with state and federal regulatory bodies regarding solid waste and radioactive mixed solid waste facilities. He has conducted negotiations at the highest levels of the Division of Environmental Quality (DEQ), Hazardous Waste Program (HWP), the Solid Waste Management Program (SWMP) and the Division of Geology and Land Survey (DGLS) as well as the Illinois Environmental Protection Agency (IEPA).

Mr. Bognar has navigated through the red tape and obtained solid waste construction and operating permits, NPDES and related storm water permits. Mr. Bognar understands Missouri and Illinois regulators and is adept at determining applicable relevant and appropriate regulations (ARARS) including the Resource Conservation Recovery Act (Solid Waste), Clean Water Act (National Pollution Discharge Elimination System permits), the Missouri and Illinois Water Laws as well as specific programs and personalities within the MDNR and IEPA

Professional Career Components:

- 20+ Years as a Professional Geologist
- Licensed Geologist in Missouri and Illinois
- Certified Professional Geologist [by the American Institute of Professional Geologists (AIPG)]
- 13+ Years Professional Consulting Experience



Leggette, Brashears & Graham, Inc.

Professional Ground-Water and Environmental Engineering Services

- National Secretary of the American Institute of Professional Geologists (1998&1999)
 - Past President of American Institute of Professional Geologist - Missouri (AIPG-MO)
 - Current Chairman of Legislative Affairs Committee - AIPG-MO
 - Co-Writer of the Missouri Geologist Registration Act of 1994 (GRA)
 - Lobbied for Passage of GRA
 - Distinct Knowledge of Environmental Law, Programs, Processes and People in Missouri and Illinois
 - Long Term Professional Relationship with the Director of the Division of Geology and Land Survey and State Geologist
 - Has a positive, professional relationship with MDNR and IEPA
 - Recipient of the Presidential Certificate of Merit Award (AIPG)1994
 - Founding Member of the Geology Engineering Advisory Alliance of Missouri
 - Educated in Missouri - B.S. Geology 1979
- Mr. Bognar has personally performed these duties on existing and proposed landfill sites:**
- ground-water sampling and analysis plans
 - ground-water statistical analysis plans
 - monitoring well installation,
 - monitoring well sampling,
 - initial geologic site assessments,
 - detailed geologic site assessments,
 - aquifer testing, aquifer properties delineation,
 - determining groundwater flow direction, gradient, and elevation,
 - installation of gas extraction systems,
 - landfill gas characterization,
 - cover documentation,
 - liner documentation,
 - statistical evaluation of ground-water,
 - quarterly monitoring reports,
 - closure /post closure plans, and
 - financial assurance instrument analysis.